

## CLAIMS

What is claimed is:

[Note: Bracketed **bold and italicized cross-referencing text** is provided in the below claims as an aid for readability and for finding corresponding (but not limiting) examples of support in the specification. The bracketed text is not intended to add any limitation whatsoever to the claims and should be deleted in all legal interpretations of the claims and should also be deleted from the final published version of the claims.]

1. A machine-implemented method for notifying at least one care-concerned person such as a medical service provider [20,605] or a medical assistant [30] to a health or medical care-related situation constituted by at least one of the following notification-worthy situations:

- 5 (0.1) completion of a care-related task [65] where said task completion calls for relatively prompt attention [26] thereto;
- (0.2) in-completion of a care-related communication delivery-attempt [45/52] where said in-completion of the delivery-attempt calls for relatively prompt attention thereto;
- 10 (0.3) in-completion of a care-related task [94,58,62] where said in-completion of the care-related task calls for relatively prompt attention thereto;
- (0.4) an unexpected change or a lack of expected change in a medical condition of a given patient [50] where said  
15 unexpected change or lack of expected change calls for relatively prompt attention thereto; and
- (0.5) an apparent failure to notify a primary medical service provider, or a primary medical assistant as may be appropriate, of one of the above notification-worthy  
20 situations;

where said machine-implemented alerting method comprises:

- (a) monitoring [81] communications related to progress or lack of

25 progress in timely completion of pre-scheduled, care-related tasks [58,62] and  
related to timely completion of pre-scheduled, care-related communication  
delivery-attempts [45/52] and related to medical conditions of respective ones of  
plural [82] patients;

30 (b) identifying [87] among the monitored communications those which are  
indicative of at least one of said care-related situations that call for relatively  
prompt attention thereto by a care-concerned person such as the medical  
service provider [20,605] and the medical assistant [30], where criteria for  
determining whether or not a given situation is one that calls for relatively prompt  
attention thereto are machine-defined and where timeliness of pre-scheduled  
ones of said care-related tasks and care-related communication delivery-  
attempts are machine-defined; and

35 (c) for an identified one of the monitored communications which is  
indicative of at least one of said care-related situations that call for relatively  
prompt attention thereto, initiating a delivery-attempt for delivering to at least one  
targeted recipient in a group comprised of said medical service provider [20,605]  
and medical assistant [30] an alert signal [Fig10A] for notifying the targeted  
recipient of the monitored and identified communication.

2. An alerting mechanism [1000] for summarily alerting a care-  
concerned person such as a medical service provider [20,605] or a medical  
assistant [30] to a care-related situation constituted by at least one of the  
following situations:

- 5 (0.1) completion of a care-related task [65] where said task  
completion calls for relatively prompt attention [26] thereto;
- (0.2) in-completion of a care-related communication delivery-  
attempt [45/52] where said in-completion of the delivery-attempt  
calls for relatively prompt attention thereto;
- 10 (0.3) in-completion of a care-related task [94,58,62] where said  
in-completion of the care-related task calls for relatively prompt

attention thereto; and

(0.4) an unexpected change or a lack of expected change in a medical condition of a given patient **[50]** where said unexpected change or lack of expected change calls for relatively prompt attention thereto;

where said alerting mechanism comprises:

(a) action requesting means **[1008]** for advising the care-concerned person **[20,30]** of an attention-giving action **[SEND,REVIEW]** that is to be provided by the care-concerned person or delegated to another care-concerned person in response to an alerted situation **[1017-1032]**;

(b) topic defining means **[1010]** for advising the care-concerned person of the medical concern **[Potassium,Asthma]** that is addressed by the alerted situation;

(c) patient identifying means **[1011]** for advising the care-concerned person of the identity of one or more patients associated with a corresponding attention-giving action **[SEND,REVIEW]** and a corresponding medical concern **[Potassium,Asthma]** that is addressed by the alerted situation; and

(d) situation identifying means **[1016]** for advising the care-concerned person of a situation type **[Retrieval-failure,Info]** to which the alerted situation belongs.

3. The alerting mechanism **[1000]** of Claim 2 wherein:

(a.1) said action requesting means includes means for advising the care-concerned person **[20,30]** to at least provide an attention-giving action selected from the attention-giving group consisting of:

(a.1a) initiating a sending **[1017]** of test results to a tested patient to at least thereby let the tested patient know that the results have been received by the care-concerned person;

(a.1b) reviewing **[1018]** contents of an automated or semi-automated interview conducted with a corresponding patient; and

10 (a.1c) becoming aware **[1021]** of a failed attempt to deliver a communication relating to a corresponding patient;

(b.1) said topic defining means includes means for advising the care-concerned person of at least one of the medical concerns in a topic group consisting of:

15 (b.1a) an identifier of a blood component **[Lipids,2305]** that is of concern;

(b.1b) an identifier of a chronic disease **[Asthma,1018]** that is of concern;

(b.1c) an identifier of an on-setting disease **[StrepThroat,1017]** that is of concern;

20 (b.1d) an identifier of a body part or body system **[Lump,1020]** that is of concern; and

(b.1e) an identifier of a type of test or other medical procedure **[Mammogram,1021]** that is of concern; and

25 (d.1) said situation identifying means includes means for advising the care-concerned person of at least one of the situation types in a situation type group consisting of:

(d.1a) a retrieval failure situation **[1019]** in which a corresponding communication delivery attempt was not timely or fully completed; and

(d.1b) an information-triggered situation **[1024]** in which information gathered during a corresponding communication delivery attempt triggered the alerted situation.

4. The alerting mechanism **[1000]** of Claim 2 and further comprising:

(e) topic category defining means **[1009]** for advising the care-concerned person of a system-supported category encompassing the medical concern **[Lipids,Asthma]** that is addressed by the alerted situation.

5. The alerting mechanism **[1000]** of Claim 2 and further comprising:

(e) privilege controlling means **[1049]** for controlling alert-disposing privileges of pre-specified ones of care-concerned persons to certain classes

or specific ones of attention-giving actions [*Letter,SchedOffice Visit*].

6. A follow-up scheduling and monitoring mechanism [1300] for automatically assisting a care-concerned person such as a medical service provider [20,605] or a medical assistant [30] in scheduling one or more health or medical care follow up actions [1311] following a first care-related situation constituted by at least one of the following situations:

(0.1) completion of a first examination [22] where an initial assessment of patient condition was made and one or more follow up medical tests [58] were ordered [23];

(0.2) in-completion of a care-related communication delivery-attempt [45/52] where said in-completion of the delivery-attempt calls for relatively prompt attention thereto;

(0.3) in-completion of a care-related task [94,58,62] where said in-completion of the care-related task calls for relatively prompt attention thereto; and

(0.4) an unexpected change or a lack of expected change in a medical condition of a given patient [50] where said unexpected change or lack of expected change calls for relatively prompt attention thereto;

where said follow-up scheduling and monitoring mechanism comprises:

(a) adaptive scheduling means [1313] for adaptively scheduling one or more attention-giving, follow up actions [*Worse?Interview,Better?Dialogs*] that are to be provided chronologically in response to the first care-related situation; and

(b) patient attribute defining means [1307] for defining one or more health-related attributes [*Height*] of the under-care patient which can affect the carrying out of said, one or more attention-giving, follow up actions [*Worse?Interview,Better?Dialogs*] that are to be provided.

7. In a machine-implemented, communications managing and

delivering system **[80,4000]** having at least one of:

(0.1) filtering means **[87,4018]** for automatically identifying intervention-worthy communications which are worthy of being reviewed **[26]** by a human intervener **[20,4024]**; and

(0.2) task in-completion detecting means **[95,3956]** for automatically detecting note-worthy failures to complete attempted communications **[29]** and/or note-worthy failures to complete scheduled action items **[83,58]**;

where the communications managing and delivering system further includes an alert generating means **[4040,4018]** for generating alert reports **[85a]** indicative of at least one category of said intervention-worthy communications, note-worthy failures to complete attempted communications, and note-worthy failures to complete scheduled action items;

an alerts summarizing mechanism **[1000]** comprising:

(a) prioritizing means **[1010]** for prioritizing alert reports according to their comparative intervention-worthinesses or note-worthinesses, where said comparative worthiness characteristics are machine-defined; and

(b) target-person identifying means **[1011]** for identifying a target-person to whom one **[1200]** of said intervention-worthy communications is to be sent, or on whose behalf a note-worthy failure **[90/95]** to complete an attempted communication occurred, or on whose behalf a note-worthy failure **[94,96/95]** to complete a scheduled action item **[45,47,58,62,26,29]** occurred.

8. The alerts summarizing mechanism **[1000]** of Claim 7 and further comprising:

(c) summarized alerts reporting means **[1012]** for reporting summarizations **[1017,1018,etc.]** of the prioritized alert reports to at least one person **[20]** responsible for reacting to the alert reports; and

(d) details providing means **[click-through-1012]** for providing more details about an alert report summarized by one of the reported summarizations in response to the at least one responsible person **[20]** selecting one of the

reported summarizations.

9. The alerts summarizing mechanism **[1000]** of Claim 8 and further comprising:

5 (e) delegation means **[1049]** for allowing said at least one responsible person **[20]** to delegate to at least a second responsible person **[30]** with instructed actions **[1025]** and by way of said communications managing and delivering system **[80]**, the responsibility of reacting to a selected one or more of the alert reports.

10. The alerts summarizing mechanism **[1000]** of Claim 8 and further comprising:

5 (f) delegation tracking means **[1026,1030,etc.]** for allowing said at least one responsible person **[20]** to track the carrying out of respective ones of said instructed actions **[1025]** by the at least second responsible person **[30]** to whom was delegated the responsibility of reacting to respective ones of said alert reports.

11. A machine-implemented, communications formulating, managing and delivering system **[80,4000]** comprising:

5 (a) interview formulation assisting means **[1222,1304,1406,1603]** for assisting a user **[20,30]** in formulating an interview **[29,3900]** that is to be delivered to one or more targeted persons **[50]**;

(b) interview delivery scheduling means **[1313]** for scheduling time ranges in which attempts **[52,90]** will be made to deliver one or more formulated interviews; and

10 (c) interview completion checking means **[90,2855,3965]** for checking that a scheduled interview was timely conducted, or if not, for alerting a responsible person of the in-completion of the scheduled interview.

12. An adaptive dialog conducting mechanism **[3900]** for use in a communications managing and delivering system **[80,4000]** where the communications managing and delivering system stores attributes describing potential target persons **[50]** to whom communications may be sent; and where

5        said adaptive dialog conducting mechanism comprises:

(a) a decision tree **[3915]** having one or more dialog flow paths that are to be followed during automated carrying out of the adaptive dialog, where the one or more dialog flow paths that are followed can be selected in real time response answers or lack of answers provided by the communication target person; and

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(b) a presentable data section **[3912]** for storing content-variable data that is to be presented at respective nodes of the decision tree, where the content-variable data may be generated in response to personal attributes of the communication target person.

13. The adaptive dialog conducting mechanism **[3900]** of Claim 12 and further comprising:

(c) a collectable data section **[3912]** for storing response and/or non-response data generated during the automated carrying out of the adaptive dialog.

14. A machine-implemented, communications delivering and response collecting system **[80,4000]** comprising:

(a) interview conducting means **[4061]** for delivering an interview through a communications channel **[4065]** to a target person and for collecting data representative of responses or non-responses by the target person to the delivered interview; and

5       

(b) alert generating means **[4070]** for analyzing said responses or non-responses by the target person to the delivered interview and for selectively generating an alert signal **[4073]** in accordance with alert rules provided within the



system.

15. A machine-implemented, communications delivering system [80,4000] comprising:

(a) a plurality of channel managers [4065,4066] each for managing delivery of one or more interviews through a manager-specific communications channel [phone,email,etc.]; and

(b) a delivery scheduler [4040] operatively coupled to the plural channel managers for delegating delivery-attempt responsibilities for specific messages to respective subsets of the plural channel managers and for undoing respective ones of said delegations when one of the channel managers succeeds [4068] in delivering a respective one of the specific messages.

16. A scalable machine-implemented, communications delivering and response collecting system [4000B] comprising:

(a) an application server [4080] for processing respective data communications [4081,4082] under pre-assigned service-organization designations (applications); and

(b) a database [4050] for storing:

(b.1) respective, communication processing rules [4083] of respective ones of said pre-assigned service-organization designations; and

(b.2) persons records [4093] defining person attributes of respective persons who can have service-providing and/or service receiving roles [4091] under each of said service-organization designations.

17. For use in a service providing organization [99], a machine-implemented method [95] for increasing likelihood that service-related communications [29] will be delivered to and retrieved by communications-

targeted persons [50], said machine-implemented method comprising:

5           (a) adaptively defining multi-channel delivery strategies over time for potential, communications-targeted persons [40,50,60] based on previous delivery-attempt histories so as to increasing likelihood of delivery success to specific ones of said potential, communications-targeted persons when a next communication is targeted to one or more of such potential, communications-  
10       targeted persons;

          (b) requesting confirmation [90] by communications-targeted persons of receipt and understanding of delivered ones of said communications; and

          (c) if failed delivery-attempts exceed predefined thresholds [52] or communications-targeted persons fail to confirm receipt and understanding of  
15       delivered ones of said communications within predefined time limits [24], routing alerts [1072] to responsible persons [20] within the service providing organization asking them to respond to the failed communications attempts.